

**Selected
Project
Portfolio**

Aubrey
Hunter
Hoyt
&
Associates

R.H. Odom,
Senior
Consultant

Forest damage assessment from Hurricane Gustav

Client: Private timberland investment firm, USA

Description: Utilized high resolution aerial photography and Landsat imagery to assess wind damage to forest stands in bottomland hardwood forests covering 2,000 sq. mi. in central Louisiana.

Resource Analysis

Development of field data systems for managing animal disease information

Client: Virginia Department of Agriculture and Consumer Services, Richmond, VA

Description: Developed mobile platform integrating RFID technology, GPS, ruggedized PDA and USDA software to collect and manage animal health data.

Mobile Systems

High resolution land cover mapping and biodiversity planning

Client: Albemarle County, Charlottesville, VA

Description: Consulted on needs assessment and technical approaches to development of a land cover map and natural heritage database in support of the County's Comprehensive Plan.

Land Use Planning

Information needs assessment and object model development

Client: USDA Forest Service, Northeast Region, Milwaukee, WI

Description: Conducted on-site interviews with IT and resource management staff to determine resource information needs and current state of enterprise data to support management actions. Developed conceptual object models to support database and application development. Developed a business process model to identify how information resources can be applied to tactical and strategic decision making within the organization.

Business and
Information Needs
Analysis

A hosted, visual inventory management system

Client: MeadWestvaco Corporation, Packaging Resources Group, Stamford, CT

Description: Prototyped an integrated enterprise platform to analyze and visualize flow of paper products from mill to customer.

Enterprise Application
Development

Landscape-level analysis of Appalachian forest communities

Client: USDA Forest Service, Northeastern Research Station, Parsons, WV

Description: Ecological analysis of environmental gradients and species distributions to support landscape-level management of public forest lands.

Resource Analysis and
Modeling

Development of West Virginia Northern Flying Squirrel geodatabase

Client: West Virginia Department of Natural Resources, Elkins, WV

Description: Integrated historical field data, topographic maps and satellite imagery to create a geodatabase and habitat model to manage endangered northern flying squirrel populations in the Allegheny Highlands of West Virginia.

Resource Analysis -
Database Development

Ecological landscape classification in the Southern Appalachian Mountains

Collaborator: USDA FS Southern Research Station, Asheville, NC

Description: Developed landscape classification techniques based on digital terrain models and multivariate analysis of vegetation-site relationships.

Resource Analysis and
Modeling

Mapping wetlands for mitigation and conservation banking projects

Client: Environmental consulting firm, Baltimore, MD

Description: Developed spatial data and map products for wetland mitigation projects throughout the mid-Atlantic region.

Resource Analysis
Cartography

Forest resource assessment and geodatabase development for Rigesa, Ltda.

Client: Westvaco Corporation, Rigesa Ltda., Santa Catarina, Brazil

Description: Technical consultant on the development of spatial data for a 50,000ha forest land base in southern Brazil. Provided oversight of spatial data development from aerial photography, instructed land managers in use of GIS, and developed a private, non-industrial forest land database based on analysis of Landsat imagery.

Resource Analysis -
Database Development

Development of terrain-based forest site classification systems

Client: Westvaco Corporation, Summerville, SC

Description: Three-year project to develop an extensive forest site classification system and spatial database for over 800,000ha in the Appalachian Mountains of VA and WV. Developed data modeling approaches, managed the development of spatial and attribute data, conducted field validation, and consulted on integration with existing GIS/IT systems.

Resource Analysis and
Modeling